

REMARKS

Status of the Claims

Claims 1-46 are presently pending, and these presently pending claims include both nonelected and elected claims. In this regard, claims 40-46 are nonelected and have been withdrawn from consideration, and claims 1-39 are elected.

Previously dependent claim 33 has been amended to recite the subject matter of all the claims from which this claim ultimately depended, and claim 33 has been made independent. Accordingly, claims 1, 33, 39, and claim 40 are independent - independent claims 1, 33, and 39 being elected, and independent claim 40 being nonelected.

Amendments to the Specification

Reference to protective layer or gloss control layer 12 as an optional element of fuser roller 10 - this layer being shown in Fig. 1 - has been added to the discussion of Fig. 1 in the paragraph at page 14, lines 14-21. Correspondingly, reference to protective layer or gloss control layer 22 as an optional element of pressure roller 20 - this layer being shown in Fig. 2 - has been added to the discussion of Fig. 2 in the paragraph at page 20, line 27 through page 21, line 3. These layers were already disclosed in the application as originally filed - for instance, in the paragraph at page 27, lines 3-10.

The deletion of "hollow" and "18" from line 7, in the paragraph at page 15, lines 5-11, corrects an inadvertent error. From the paragraph as a whole, it is apparent that the intention at line 7 was not to refer only to the hollow filler particles of the fuser roller resilient layer, but rather to all three types of particles that can be included therein - i.e., the hollow filler particles specified immediately thereafter in line 8, and the strength-enhancing solid particles and thermal-conductivity-enhancing solid particles, identified subsequently at lines 8 and 9. This stated configuration corresponds to the discussion, at page 21, lines 6-10, of the three types of filler particles in the pressure roller resilient layer. It is additionally consistent with the original disclosure throughout the application, referring to the resilient layer as incorporating these three types of particles.

The correction of "has" to ---can have--- in the last sentence of the paragraph at page 23, lines 15-23, is consistent with the original disclosure. With this change, the revised sentence now accurately states that a roller configuration with a single layer on the core is one possible embodiment of the invention; as discussed, in an alternative embodiment, an additional layer can be present.

In the paragraph at page 26, lines 8-19, the change of "125'" to ---125'--- at line 18 corrects another inadvertent error. From the paragraph, it is apparent that

the element referred to at line 18 is the same uncured layer 125''' discussed earlier in this paragraph, at lines 9-11.

The first sentence in the paragraph at page 27, lines 8-19 has been corrected so as now to state, accurately, that the optional protective layers or gloss control layers indeed are shown in Figs. 1 and 2, as discussed.

Amendments to the Claims

In claims 24 and 25 "fusing-station" has been changed to ---fuser---, for consistency of language. Claim 23, from which claims 24 and 25 both ultimately depend, further defines the fusing-station roller as a fuser roller, so claims 24 and 25 have been amended to refer specifically to the latter. The foregoing is consistent with the language of claims 31 and 32. Claim 31 specifies that the fusing-station roller is a pressure roller; so claim 32, depending from claim 31, recites the pressure roller thereof.

In the present Office Action, the Examiner states that dependent claim 33 would be allowable if it were placed in independent form, incorporating the subject matter of all claims in the chain of its dependency. Claim 33, has been amended in accordance with these requirements. It accordingly appears that, regardless of any other reasons for allowability, claim 33 is patentable for this reason alone.

Election/Restrictions

In accordance with the requirement of the Examiner, the election of Group I, claims 1-39, is affirmed.

Objections to Drawings

As noted herein, the specification had been amended to include discussion of layers 12 and 22 in Figs. 1 and 2, respectively. Support in the original disclosure for these amendments also has been noted herein.

It is respectfully submitted that, contrary to the Examiner's assertion in paragraph 6 of the Office Action, layer 125''' from Fig. 3 indeed is discussed in the specification as originally filed. As has been noted, at page 26 it is correctly identified in lines 9-11, and was incorrectly identified in line 18 as layer 125''; also as has been noted, amendment of the latter occurrence to ---125''' is made herein.

It appears therefore that all three of the Examiner's objections to the drawings have been addressed.

Specification

In accordance with the Examiner's request, the specification had been reviewed, and all errors discovered are corrected in this Reply.

Rejection of claims 37 and 38 under 35 U.S.C. § 112, Second Paragraph, for Indefiniteness

It does not appear that there is any requirement for reciting polymer molecular weight in terms of number average, weight average, etc. In fact, it is well known and accepted in the polymer arts to disclose and recite size using molecular weight per se, without further embellishment, as the

unit of measurement. For instance, U.S. Patent No. 4,820,693 (GILLESPIE) recites (in claim 34) and discloses (at column 5, lines 64-67) the polymer pentosan polysulfate as having a molecular weight of 1,600-6,000, without further definition of the molecular weight for this range.

A copy of GILLESPIE is filed with the present Reply. More patent examples demonstrating this point can be discovered and cited to the Examiner, if necessary.

In view of the foregoing, it is respectfully submitted that the recitation in claims 37 and 38 of molecular weight, without further definition, meets the requirements of 35 U.S.C. § 112, second paragraph.

Rejection of claims 1-32, 34-36, and 39 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,261,214 (MEGURIYA) in view of U.S. Patent Application Publication No. 2002/0102410 (GERVASI et al.)

In fact, MEGURIYA and GERVASI et al. teach different end results, obtained with different starting materials, using different means.

The MEGURIYA roller layer, though it optionally can have an overlying fluoro-resin layer (column 1, line 65 through column 2, line 1), is a layer of organopolysiloxane alone (column 1, lines 57-62). Different fillers can be distributed through this layer, but there is no polymer other than organopolysiloxane making up the continuous phase.

In contrast, the GERVASI et al. layer is an interpenetrating polymer network (IPN) of

polytetrafluoroethylene and polysiloxane (Abstract; paragraph [0017]). GERVASI et al. further teaches particular starting materials and process conditions - including the use of an organic liquid, preferably a hydrocarbon liquid - for preparing the disclosed IPN (paragraphs [0018] and [0031]-[0037]).

The Examiner maintains that one skilled in the art would have been motivated to interpenetrate the MEGURIYA silicone with the GERVASI et al. polytetrafluoroethylene. However, it is respectfully submitted that MEGURIYA and GERVASI et al., whether each is considered alone or they are taken together, fail to disclose or suggest how to combine their teachings to provide Applicants' recited invention. For instance, as just one difficulty, there is no disclosure or suggestion how the MEGURIYA process could be modified to employ the GERVASI et al. organic liquid.

Moreover, even if this impossible combination could be made, the result still would not be Applicants' recited invention. Applicant's layer, as recited, is a fluoropolymer material. The MEGURIYA layer is a silicone rubber layer (Abstract; column 5, lines 15-23); modifying it to include polytetrafluoroethylene would not make it a fluoropolymer layer.

For the foregoing reasons, claims 1-32, 34-36, and 39 are patentable over the combined teachings of MEGURIYA and GERVASI et al.

And particularly as to Applicants' claims 31 and 32, it is noted that these claims recite the pressure roller of

Applicants' invention. MEGURIYA teaches heat fixing rolls, but does not disclose or suggest pressure members (Abstract; column 1, lines 4-8 and column 1, line 65 through column 2, line 1; column 2, lines 7-12). GERVASI et al. does make mention of pressure members, but seemingly as an afterthought ([paragraph 0029]); the GERVASI et al. teachings largely pertain to fuser rolls, and emphasize the advantages of the disclosed IPN for fusing surfaces (Abstract; paragraphs [0017]-[0019] and [0029]. In any event, as discussed, MEGURIYA and GERVASI et al. even fail to disclose or suggest how MEGURIYA can be modified to provide Applicants' fusing-station roller broadly - as recited in claims 1-32, 34-36, and 39. Accordingly, with MEGURIYA failing to disclose or suggest pressure members, it is especially apparent that MEGURIYA and GERVASI et al. fail to disclose or suggest modification of MEGURIYA to provide Applicants' pressure rollers in particular - as recited in claims 31 and 32. For this additional reason, claims 31 and 32 are patentable over the combined teachings of these two patent publications.

Allowable Subject Matter

As has been noted, herein claim 33 is amended in accordance with the Examiner's requirements, and so is patentable for this reason alone.

CONCLUSION

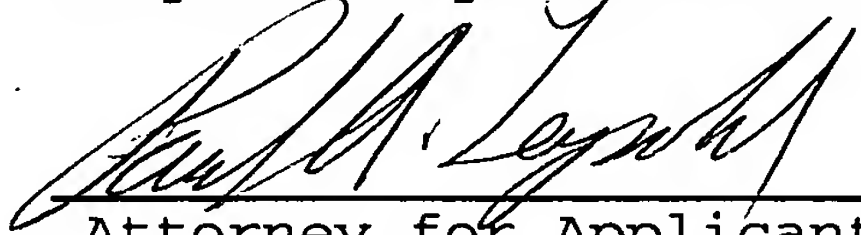
It is respectfully submitted that, for the reasons as stated, the claims presently pending in this Application are patentable over the art of record, and the Application is otherwise in condition for allowance.

Withdrawal of the restriction requirement, withdrawal of the objections and rejections, and allowance of all pending claims, is respectfully requested. It is further respectfully requested that this allowance be set forth in the next Official Action for the Application.

Favorable action is respectfully solicited.

Should the Examiner have any questions or comments regarding this matter, the undersigned may be contacted at the below-listed telephone number.

Respectfully submitted,



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Enclosures

If the Examiner is unable to reach the Applicant(s) Attorney at the telephone number provided, the Examiner is requested to communicate with Eastman Kodak Company Patent Operations at (585) 477-4656.